REMARKS

Reconsideration and allowance of the present application are respectfully requested. Claims 1-36, 42-45 and 52-63 are currently pending in this application.

Regarding the Current Amendments

A number of changes have been made in this Response to clarify the invention. For instance, dependent claims 2-16 have been redrafted to depend from claim 52 instead of claim 1, and dependent claims 18-31 have been redrafted to depend from claim 53 instead of claim 17. Certain other changes are identified below.

Regarding the 35 U.S.C. § 102 Rejection

Claims 1, 3-9, 12, 14-17, 19-25, 28, 30-32, 34-36, 42-45, 52 and 53 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,157,415 to Glen (referred to below as "Glen"). Applicant respectfully traverses this rejection for the following reasons.

As amended, independent claim 1 recites a video input system for pre-processing video signals. The video input system comprises a video input module for receiving, processing and forwarding one or more live video signals, the video input module producing a forwarded video signal for each received live video signal. The video input system also comprises a first multiplexer, coupled to a memory and to the video input module, for receiving a first stored video signal from the memory, or for receiving one of the forwarded video signals produced in the video input module, and for providing an output signal VS_1 defined as the first stored video signal or defined as the one of the forwarded video signals. The video input system also comprises a first video pipeline for pre-processing VS_1, the first video pipeline producing a first pre-processed video signal. The video input system also comprises a second multiplexer, coupled to the memory and to the video input module, for receiving a second stored video signal from the memory,

or for receiving one of the forwarded video signals produced in the video input module, and for providing an output signal VS_2 defined as the second stored video signal or defined as the one of the forwarded video signals. The video input system also comprises a second video pipeline for pre-processing VS_2, the second video pipeline producing a second pre-processed video signal.

Glen does not teach or suggest the above-described recitations of claim 1. As shown in Fig. 1 of Glen, Glen discloses an image blending module 10 including an input selection module 12, a color base conversion module 14, and an output module 16. The input selection module 12 may include a single port for receiving a video input. In this case, the selection process can be performed manually by a user who selects one of the plurality of video inputs and manually couples the selected video input to the video input port. Alternatively, the input selection module 12 may include a plurality of ports for receiving the video inputs. In this case, the input selection module 12 can include a selection switch for selecting one or more of the video inputs. The color conversion module 14 receives the selected image inputs and produces converted images layers 22 therefrom. In general, the color base conversion module 14 converts the color base of each of the selected image inputs when the color base of the image inputs does not match the color base of the output. Converted and non-converted image inputs are stored within a frame buffer 26 by the color base conversion module 14. The output module 16 retrieves data from the frame buffer 26 and performs a blending operation thereon. Note generally column 3, line 38 to column 4, line 54 of Glen.

The figure specifically referenced in the Office Action – namely Fig. 2 of Glen – shows a specific dynamic image layer blending module 30. This module 30 includes a plurality of input multiplexers 32-38, a plurality of color base conversion modules 42-46,

a plurality of blending modules (48, 50), a configuration module 40, a plurality of output multiplexers 54-58 and a memory 52. Note generally column 5, lines 7-49 of Glen.

First, Glen does not teach or suggest a video input module for receiving, processing and forwarding one or more live video signals, the video input module producing a forwarded video signal for each received live video signal. The Office Action states that "Glen discloses a video mixing system showing an input terminal for receiving different kinds of video signals (Figure 2), either from live video sources or video storages or memories, which meets the video input module and the memory as claimed" (page 3, lines 3-6 of the Office Action). However, there is no module in Glen which feeds signals to its multiplexers 32-38 which serves the role of the claimed video input module, that is, which processes and forwards one or more video signals. An input terminal *per se* – which appears to be how the Office Action is interpreting the recited video input module – does not process and produce signals as claimed.

Second, and more generally, it is apparent that Glen's apparatus is designed to convert signals that satisfy the format expectations of video *output* equipment. Indeed, Glen states that the disclosed blending modules can be incorporated into the video output equipment itself (column 3, lines 21-24 of Glen). Because Glen's apparatus is clearly affiliated with video output equipment, it should be interpreted as related only to output functionality. In contrast, claim 1 recites a video *input* system for *pre-processing* video signals, not an output system. (This distinction is further clarified in dependent claims 58 and 63, which recite both a video input system and a video output system; Glen's apparatus cannot be construed as *both* an *input* system and *output* system.)

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). For at least

the above exemplary reasons, Glen does not anticipate each and every element in claim 1, and therefore it fails to anticipate this claim under § 102. Moreover, as explained above, Glen actually recites a system which is markedly unlike the system recited in claim 1.

The other independent claims in this case (i.e., claims 17, 32, 42, 52 and 53) have been amended in a manner similar to claim 1. Therefore, these claims are allowable over Glen for reasons related to those given above. In addition, these claims recite additional elements not found in Glen. For example, claim 53 recites that VS_2 can also be the same video signal being pre-processed in the first video pipeline. Glen does not disclose two pipelines for processing the same video signals (in combination with the other elements of claim 53).

The remaining claims rejected under 35 U.S.C. § 102(e) (i.e., claims 2-9, 12, 14-16, 19-25, 28, 30, 32, 34-36 and 43-45) depend variously from the above-identified independent claims, and are therefore allowable for at least this reason. In addition, these claims recite additional features that are not taught or suggested by Glen. To cite one example, dependent claim 6 recites that the first pre-processed video signal is output to a storage medium and the second pre-processed video signal is forwarded to a video graphics processor. Dependent claim 7 recites that the first pre-processed video signal is output to a storage medium and the second pre-processed video signal is forwarded to a video output system. And dependent claim 8 recites that the first pre-processed video signal is forwarded to a video graphics processor and the second pre-processed video signal is forwarded to a video output system. The Office Action states that "the output signals in Glen are intended to be provided different medium [*sic*], such as storage medium, video graphics processors, and display media" (page 3, lines 17-19 of the Office Action). However, these claims specifically recite that the output of the first and second video pipelines (e.g., the first and second pre-processed video signals) are output to

different respective specific output devices. Glen does not specifically disclose this feature; in contrast, Glen's processing generates different components of a single output (e.g., see column 3, lines 2-6), not signals feed to separate output devices.

The above discussion of the dependent claims is representative, rather than exhaustive, of the deficiencies of the Glen reference vis-à-vis the claimed invention.

For at least the above-stated reasons, the Applicant submits that the 35 U.S.C. § 102 rejection based on Glen is misplaced, and respectfully requests that it be withdraw.

Regarding the 35 U.S.C. § 103 Rejection

The remainder of the pending claims, i.e., claims 2, 10, 11, 13, 18, 26, 27, 29 and 33 were rejected under 35 U.S.C. § 103 as being unpatentable over the above-identified Glen reference. Applicant respectfully traverses this rejection for the following reasons.

Claims 2, 10, 11, 13, 18, 26, 27, 29 and 33 now depend variously on the above-identified independent claims 52 and 53, and are allowable for at least this reason. Namely, Glen is deficient with respect to claims 52 and 53 for the reasons stated above. Furthermore, the rejection of the claims under § 103 does not overcome Glen's deficiencies because these deficiencies pertain to fundamental differences between the systems and methods recited in the claimed invention and Glen's system (as described above).

In addition, the rejected dependent claims recite additional subject matter which is not disclosed in Glen. For instance, claim 2 recites that the video input module further comprises an ancillary data extractor, the extractor removing ancillary data from at least one of the live video signals converted in the video input module. The Office Action states that such ancillary data extractors are well known in the art (page 5 of the Office Action). Even if, assuming *arguendo*, data extractors are known in general, there is no disclosure in Glen (or in general knowledge in that art) that it would have been obvious to

include such a feature in a video input module within the specific context of the system defined by claim 2 (which now depends on claim 53).

Again, the above discussion of the dependent claims is representative, rather than exhaustive, of the deficiencies of the Glen reference vis-à-vis the claimed invention.

For at least the above-identified reasons, the Applicant respectfully requests that the rejections based on Glen under 35 U.S.C. § 103 be withdrawn.

Regarding Newly Added Claims

A number of additional dependent claims (i.e., claims 54-63) have been added which also distinguish over the applied documents. That is, these claims depend variously from claims 52 and 53 and are therefore allowable for at least this reason. In addition, these claims recite additional subject matter which is not disclosed or suggested by Glen. For instance, dependent claim 54 recites that the processing performed by the video input module comprises converting "said one or more live video signals into a defined format to provide the forwarded video signal for each received live video signal." The Office Action appears to interpret the claimed video input module as an input terminal, but an input terminal *per se* cannot perform the converting function as claimed. Claim 55 recites that the video input module comprises a receiver, a processor and a buffer. Again, the Office Action appears to interpret the claimed video input module as an input terminal, but an input terminal *per se* cannot include a receiver, a processor and a buffer. Claim 56 recites that the first video pipeline and the second video pipeline respectively generate video signals for output to two different output devices. Glen does not disclose that different conversion modules or blending modules can generate video signals for output to two different output devices in the context claimed. Claim 57 recites that the first video pipeline and the second video pipeline process two video signals having separate content in interleaved fashion. Glen does not disclose the use of the

conversion modules and blending modules for this purpose. And finally, claim 58 recites that the video input system is coupled to a video output system, wherein the video output system defines a video signal output format of a combination of the video input system and the video output system. As mentioned in connection with claim 1, Glen does not disclose a video input system at all; thus, by reciting both a video input system and a video output system, claim 58 highlights this deficiency of Glen. Dependent claims 59-63 recite similar subject matter to claims 54-58 above.

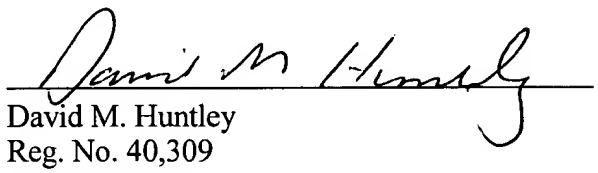
Conclusion

As stated above, the arguments presented above are not exhaustive; Applicant reserves the right to present additional arguments to fortify its position. Further, Applicant reserves the right to challenge the alleged prior art status of one or more documents cited in the Office Action. Further, Applicant traverses all allegations in the Office Actions that claimed features are "inherent" or "well known," as these assertions are not supported by the Glen reference; the Examiner is respectfully requested to cite documentary support for such allegations if these statements are repeated.

All objections and rejections raised in the Office Action having been addressed, it is respectfully submitted that the present application is in condition for allowance and such allowance is respectfully solicited. The Examiner is urged to contact the undersigned if any issues remain unresolved by this Amendment.

Respectfully Submitted,

Dated: Aug 3, 2004

By: 

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